

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

PCT/DE2003/003913



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|--|---|--|
| Applicant's or agent's file reference<br>2002P20296WO                                      | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |  |
| International application No.<br>PCT/DE2003/003913   | International filing date (day/month/year)<br>26 November 2003 (26.11.2003)   | Priority date (day/month/year)<br>17 January 2003 (17.01.2003) |
| International Patent Classification (IPC) or national classification and IPC<br>G05F 1/571 |   |  |
| Applicant<br>SIEMENS AKTIENGESELLSCHAFT  |   |  |

|  |   |
|--|---|
| 1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.  |   |
| 2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.   |   |
| <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). |   |
| These annexes consist of a total of _____ sheets.  |   |
| 3. This report contains indications relating to the following items:   |   |
| I <input checked="" type="checkbox"/>  | Basis of the report   |
| II <input type="checkbox"/>  | Priority  |
| III <input type="checkbox"/>   | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| IV <input type="checkbox"/>  | Lack of unity of invention  |
| V <input checked="" type="checkbox"/>  | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI <input type="checkbox"/>  | Certain documents cited   |
| VII <input type="checkbox"/>   | Certain defects in the international application  |
| VIII <input type="checkbox"/>  | Certain observations on the international application   |

|  |  |
|--|--|
| Date of submission of the demand<br>11 May 2004 (11.05.2004) | Date of completion of this report<br>22 February 2005 (22.02.2005) |
| Name and mailing address of the IPEA/EP                      | Authorized officer   |
| Facsimile No.  | Telephone No.  |

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/003913

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-8 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-6 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages \_\_\_\_\_ 1/1 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/DE 03/03913

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

|                               |        |     |     |
|-------------------------------|--------|-----|-----|
| Novelty (N)                   | Claims | 4-6 | YES |
|                               | Claims | 1-3 | NO  |
| Inventive step (IS)           | Claims |     | YES |
|                               | Claims | 1-6 | NO  |
| Industrial applicability (IA) | Claims | 1-6 | YES |
|                               | Claims |     | NO  |

### 2. Citations and explanations

1. The following documents were cited in the international search report:

D1: DE 100 49 994 A (ENDRESS HAUSER GMBH CO) 11 April 2002 (2002-04-11)

D2: EP-A-0 545 042 (MOTOROLA INC) 9 June 1993 (1993-06-09)

2. Document D1 is considered the prior art closest to the subject matter of independent claim 1.

2.1. Document D1 discloses a voltage supply circuit (D1, figure 1)

a) with a plurality of voltage supply components Q1, Q2 for supplying voltage to various assemblies and/or interfaces V1, V2 in an electric system (D1, column 1, lines 60-68),

b) with a control circuit 1, 2, 3 for controlling a first voltage supply component (D1, column 2, lines 3-16),

- c) said control circuit being linked to those voltage supply outputs U12, U21, GND of various voltage supply components between which a maximum voltage difference occurs during operation (D1, figure 1),
- d) and said control circuit being configured such that, when the maximum voltage difference deviates from a reference value  $\Delta U_{12}$ , the first voltage supply component is readjusted so that the deviation is reduced (D1, column 2, lines 47-56 and column 4, lines 50-56).

2.2. Thus the combination of features described in claim 1 is known from document D1. Consequently, claim 1 does not satisfy the requirements of PCT Article 33(2) because the subject matter of this claim is **not novel**.

3. Dependent claims 2 and 3 do not contain any additional features that, in combination with the features of any claim to which they refer back, meet the PCT requirements for **novelty** (PCT Article 33(2)). The reasons are as follows:

Claim 2: The control circuit is configured such that the maximum voltage difference  $U_{12}-U_{GND}$  essentially does not exceed a prescribed maximum voltage (D1, column 2, lines 52-54).

Claim 3: Document D1 discloses an emergency shut-off device 2 for shutting off the voltage supply when the maximum voltage difference exceeds a prescribed maximum voltage (D1, column 2, lines 52-54).

4. Document D1 is considered the prior art closest to the subject matter of independent claim 4.
  - 4.1. The subject matter of claim 4 differs from the voltage supply circuit disclosed in document D1 merely by the feature wherein said circuit is used to supply voltage to a communications system.
  - 4.2. Claim 4 thus relates to a novel use of the voltage supply circuit known from D1.
  - 4.3. However, a similar voltage supply circuit 200 with a plurality of voltage supply components 204, 206 and with a control circuit 208 for supervising and limiting voltage was already used to supply voltage to a communications system 218' (cf. document D2, column 3, lines 4-46 and figure 2).
  - 4.4. Accordingly, the subject matter of claim 4 consists merely in the fact that a device that is known from D2 (communications system with voltage supply) is replaced by an element (voltage supply) that is known from D1, the properties of which make it obviously useful for the purpose in question (analogous exchange).
  - 4.5. Therefore, the subject matter of claim 4 does not involve an **inventive step** (PCT Article 33(3)).
5. The features of dependent claims 5 and 6 merely define further obvious uses of the voltage supply circuit known from document D1. Therefore, the subject matter of said claims does not involve an **inventive step** and thus does not fulfill the criterion set out in PCT Article 33(3)).